Air Cargo Facilities to Rank Among Top War Requirements

THE AIR LINE PILOT

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Carrier Committee and ALPA Reach Accord on Monthly Hours

LATE NEWS IN BRIEF

Righto!

Mayor La Guardia of New York recently refused to commit himself when asked how he felt regarding a proposal to change the name of La Guardia Field to MacArthur Field, in honor of America's top general. Said the "Little Flower": "It's still a good airport —a good field by any name."

99.97%

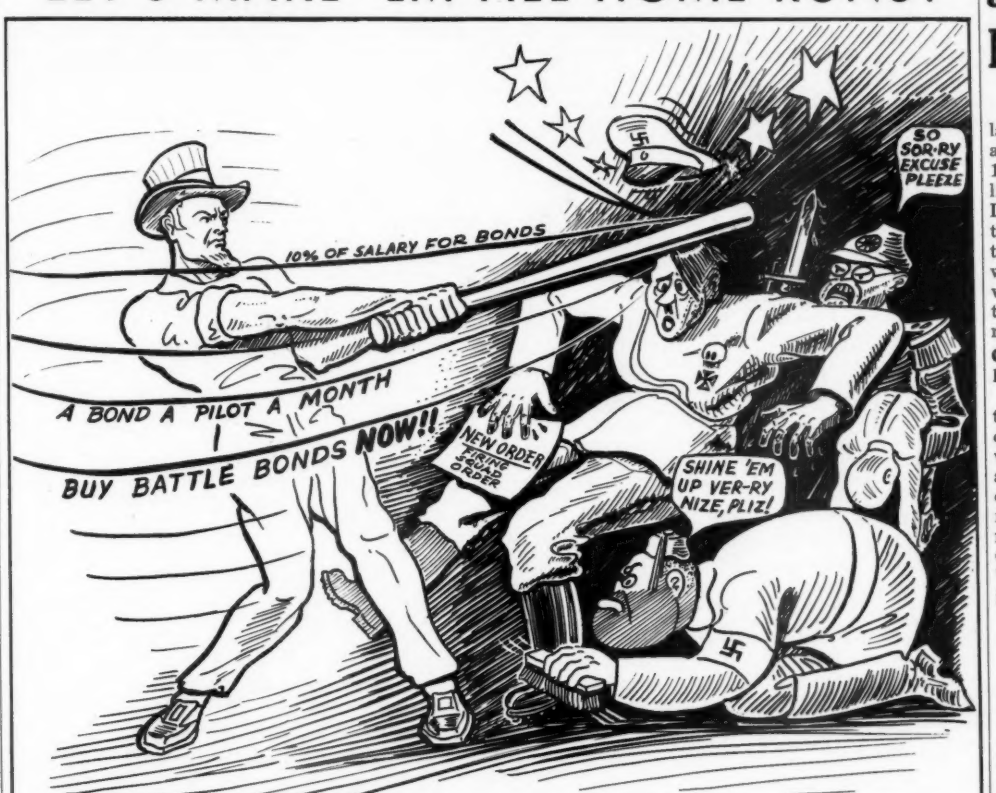
The Director of the United States Conciliatory Service of the Department of Labor, J. R. Steelman, recently remarked, "The true picture is that the pledge by labor and management of full cooperation and continuous production has been 99.97% successful."

At the same time we hear certain congressmen in Washington proclaiming loudly that the public is demanding this and that and something else in the way of labor baiting legislation. A question that obviously suggests itself is, "Who of the public is doing such demanding?" A safe-bet answer is, economic royalist interests, as usual.

"Toughies"

One hundred former commercial air liners, described as "the hardest working planes in the world," are transporting about 500 tons of priority aviation equipment weekly throughout the Western Hemisphere. They fly 10 hours a day, or an average of 1,500 miles. With rare exceptions, they are being piloted by air line pilots.

LET'S MAKE 'EM ALL HOME RUNS!


10% OF SALARY FOR BONDS
A BOND A PILOT A MONTH
BUY BATTLE BONDS NOW!!
NEW ORDER
SHINE 'EM UP VER-RY NIZE, PLIZ!
SO SOR-RY EXCUSE PLEERE

A BULL'S-EYE

Once in a while Headquarters picks up something from the great flow of incoming mail that sparkles with life and meaning. Following is such an item from a letter written by a member on active duty:

"I know that the future of the air line pilot will be only as bright as the ALPA is strong."

V • • • —

Ultimate victory may be some distance away — just how far no one can, of course, predict exactly. There are probably no two people on the side of the United Nations whose attitude and mannerisms reflects such unshakable confidence in that victory as Lord and Lady Halifax of Great Britain. They have many times winged their way across the turbulent Atlantic to report to their chief, Prime Minister Churchill. The U.S. is indeed fortunate to have such amiable and sincere representatives from their principal ally, the British Empire. Britain stands unalterably with the U. S. on the side of the governmental principles of free peoples throughout the world, and against the Axis throw-back to the Dark Ages, when man was ruled by fear, privation, despotism, and downright cruelty.

—Pan American Photo

Air Cargo Vital To War Success

Due to the widespread nature of the war and the general trend of current war operations, transporting supplies and personnel by air is rapidly forging into prominence as a vital factor necessary to success. That this is a war of transportation is becoming increasingly evident. In addition to surface transportation being laboriously slow, especially where long distances are involved, it is subject to practically all forms of enemy harassment.

Air Transportation Indispensable

There are two factors that have a vital bearing on the problem. First, the countries of the United Nations are widely separated, and second, the war fronts of World War II have thousands upon thousands of miles intervening. A huge wartime air transportation

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Collision Consciousness Is Patriotic—CAB

In a recent Safety Bulletin, the Civil Aeronautics Board makes a plea which should be taken to heart by all who fly—for Uncle Sam needs all the wings he has. The bulletin follows:

If you do not value your own life, at least be patriotic enough to conserve your ship and your ability to help win the war. Do not take unnecessary chances and, above all, try to avoid collisions because when a collision occurs two airplanes are lost to the war effort instead of one.

Constant alertness, courtesy, and compliance with common-

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Lack of Accident Routine Evident

The Safety Bureau of the Civil Aeronautics Board has prepared and distributed two bulletins on Crash Procedures within the last several months. It is possible that the material and organization required in these bulletins are too elaborate for small airports or airports which do not have the traffic to warrant such extensive organization. However, a recent accident showed conclusively the need for organization at even small airports.

Trained Personnel Could Have Greatly Reduced Loss

The airplane involved, which belonged to an air carrier, crashed

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BRIGHT PILOTS DIM LIGHTS

It is well known that bright cockpit lights reduce vision from the cockpit at night—may lead to collision hazards with other aircraft or mountains—

It is not so well known that they may also lead to collision with birds.

The following is taken from an Air Line Pilots Association migratory bird report made to the Civil Aeronautics Board and later distributed to the industry by its Air Safety Bureau:

"The great percentage of aircraft-fowl collisions occurred during the fall and spring of the year. It was also found that the right windshield was hit far more often than the left windshield. Also, the likelihood of striking birds at night, or during the hours of darkness, is greater than during daylight hours. This, no doubt, can be attributed to the birds' inability to dodge because of their restricted night time vision, or possibly, because they are attracted by cockpit or cabin lights."

KEEP 'EM DIM FOR SAFETY

June 2nd Meeting History Making

History was written in the relationship of air carrier officials and the air line pilots on June 2, 1942, when a committee of air line vice-presidents met with Air Line Pilots Association officials at the Blackstone Hotel in Chicago to discuss questions relating to wartime flying hours and salaries, which were of common concern to all the pilots and all the carriers.

Carriers Represented Collectively For First Time in History

This meeting marked the first time the carriers were represented collectively by a committee to talk with the pilot representatives about specific working condition questions. The companies were represented by Messrs. S. L. Shannon of Eastern Air Lines, J. A. Collings of Transcontinental and Western Air (both Vice-Presidents in Charge of Operations), and R.

M. McCraith of the Air Transport Association. The fourth member of the carriers' committee, Vice-President Bruce E. Braun, Chicago & Southern, was unavoidably detained and could not be present at the June 2 conference. On the pilots' side of the conference table were ALPA's President, David L. Behncke, and Daniel D. Carmell, chief counsel for the pilots.

Joint Committees Formulate Memorandum of Understanding

The conference convened at 10:00 A. M. and ended at approximately 4:00 P. M. in the successful culmination of a Memorandum of Understanding covering the matters of removing the conflict between the monthly flying hours

(Continued on Page 3, Col. 2)

Stanton Named Civil Air Chief

When President Roosevelt nominated Charles I. Stanton for the position of Administrator of the Civil Aeronautics Administration on May 27, he selected a man whose aviation "life span" stretches back to 1918. Prior to his latest promotion, he had been Acting Administrator since shortly after Pearl Harbor. He replaces Brig. Gen. Donald H. Connolly.

Steadily climbing up the ladder to his present important post, Stanton, who will not be 49 until July 28, won his wings at Kelly Field, Texas, in 1918. He has held such jobs as test pilot on the first air mail routes flown by the Government; Assistant General Superintendent of Air Mail; Chief of the Airways Engineering Division; Director of Bureau of Federal Airways, and Assistant Administrator of the CAA.

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LOOKING AHEAD

Talking about after the end of the war is something like wondering what we are going to do after we have made our first million. In other words, we have a very big job ahead to win the war and it is not going to be easy.

A little optimism is quite all right, but too much is dangerous. Before Pearl Harbor there was the soothing music of the Pied Piper, the strains of which were: we can lick the Japs in two weeks; we're protected by two oceans—large ones; this isn't our war, etc. Now we are hearing about dealing the enemy knockout blows—the war isn't going to take as long as was originally expected—the Japs are on the run—there'll be a revolt in Germany, etc., etc.

We are going to lick them, that is a certainty; *but the idea that we can't be licked is dangerous.* We certainly don't want to get ourselves in the position of the prize fighter who thought he had slugged his opponent into impotence and leaned carelessly over the ropes to say, "Hyah there, George," to his friend in the audience, while his adversary took advantage of the opening and knocked him senseless.

Everything considered, everyone should keep his eyes on the ball until the war is won, but, nevertheless, to do a little looking ahead will do no harm, and maybe we will be better prepared for peace than we were for war. When World War I ended we were certainly going great, but the sudden signing of the Armistice threw us into a quandary from which we never quite recovered. It would be wise for the powers that be to do a little advance planning on this point.

A mistake that we should not make again is permitting our enemies to toss in the towel before they are really counted out, go back home and lick their wounds, and a few years later again throw the well-known stiletto of double cross into our backs.

While on the subject of mistakes, let's not be so "holier-than-thou" about hurting people's feelings in our efforts to protect the future rights of our country and the rights of all countries that are similarly constituted. When World War II ends, an international police force should be created by the United Nations to maintain order and justice throughout the world, pending the establishment of a permanent system of security. People who think for themselves and have the right to do so are growing mighty sick of the spies and lies of chest-beating, goose-stepping despots and their stooge-nation cohorts.

On the after-the-war front we hear of commercial flying, especially air carrier operation, absorbing all of the current and still expanding wartime air fighting equipment-manufacturing facilities, all the war pilots, and other personnel. At the rate we are going, this is the worst kind of wishful thinking and is as impossible of realization as the Buck Rogers Planetary Operation. Postwar air transportation will grow and develop orderly and normally, that is a certainty. Our country, to measure up to its postwar global air commerce responsibilities, will be dependent upon increasing growth and expansion of our air network, both domestically and internationally, because tomorrow's world trade routes will inevitably be air routes—but to believe that commercial flying is going to absorb all the trained men, material, and equipment-building facilities that are being drafted into service in the greatest air war effort in the history of the world to win World War II is just plain foolishness.

For anyone to expound such a theory is inflicting a low blow to our country's aviation generally. First, our air force, all branches, should never again be allowed to become anything except second to none, no matter how certain future peace may seem to be or how loud the pacifists may be in their wailings to have us again sink our Navy and ground our Air Force, and they'll be around to make the effort—just you wait and see. All the good pilots who want to stay in our air fighting services should be allowed to remain there when the war ends and not be discharged and have their indispensable worth to our country's security lost as was so amply demonstrated at the end of World War I and since. What's more, it will be less costly this way. First of all, whether we want to or not, the United Nations will have to be the world's policemen for a time to see that there is no recurrence of the present deplorable spectacle of a raped civilization, international suffering, hardship, starvation, and wanton disregard for human life, and it isn't going to be possible to be a policeman without having a big stick, and that big stick must be an air force second to none.

In other words, we have made some bad mistakes. We have learned our lesson and we are still learning it the hard way. Only fools forget this kind of a lesson. *We may be easy-going but we are not fools.*

WARTIME CHISELING

Recommendations regarding flight time limitations affecting the air line pilots have been received by the Air Carrier Division of the Civil Aeronautics Administration. These recommendations came from someone who desires to change the 8 hours in any 24 to 8 hours and 30 minutes, the 30 hours in any 7 consecutive days to 32 hours, and the 1,000 hours in a calendar year to 1,200 hours. With the exception of the last proposal which should include a *"for the duration of the war"* provision to bring it in line with H. R. 6799, the air line pilots' new wartime monthly flight time law, all this is obviously in the category of petty chiseling—and the worst kind—wartime chiseling. The question is, who is behind this chiseling attempt and for whom is he stooging? Let's not forget that many of the air line pilots are away on active duty in the service of their country and more are leaving almost daily. What could be more despicable than to destroy their safety and working conditions standards while they are away? The answer to that one is easy—NOTHING.

—*David L. Behncke*

LOOK OUT! YOU'RE ABOUT TO SIT ON A NEEDLE

By ED COUPLES
Council No. 32, PCA
Detroit, Mich.

Well, my hearties, Eleanor No. 2 is off again. No news, so will just pass along the gossip heard through the grapevine. My mailbox is bulging with news items placed there by my staff of Winchells, and anything you read here is strictly hearsay and I accept no responsibility for its authenticity. All information divulged here is rare scandal (unadulterated) and purely coincidental.

Scribe Is Looking for a Gal with—Qualifications

I'm trying to find a gal that can cook, sew buttons on shirts, repair zippers, and darn socks. Any other traits, good or bad, will be accepted at face value. If you know one of the type mentioned, pass the word along to First Officer 498x5. That's a secret code, as I dare not divulge his name because, at this time it cannot be told. But here's a little tip: Brunet, slightly wavy hair, medium height, dazzling blue eyes, fair complexion, Charles Boyer type, born during the last World War in York, Pa., and is just at the awkward age between 18 and 40. Blushes profusely at the slightest provocation, starting at the waistline, gradually creeping upward at the driving speed of a P-39.

Capt. Bill Mason is the father of a new baby boy, his first, so you can now call him daddy. Bill says the WPB may have the tire situation all sewed up, but not the babies. Bill says he never knew there were so many little drips.

Never Drop-A-Drip After John Hopkins Looks You Over

Say, you fellows that have not gone for your physical checkup at J. H. hospital have missed the shots of a lifetime. When you get out of there it is a pleasure to roll in a cactus patch. The old saying "to the last drop" is vehemently practiced there. Four days there and you are ready for the big league because you never drop-a-drip. I never knew how to save until I went there and now I wish I had went there before I came here! Bud Baker went to have his liver checked, but they couldn't get close enough.

Remember Cecil Northrop? The doctors turned him over to the revenue agents for running a still. They gave Albert Miskett, J. Harold McClintock, and me some iron capsules to take. I thought they were kidding until I got one caught in my throat and it required two internes and a chambermaid to remove it. After the capsules, they put you on a diet of chilled shot minus salt. This morning I fainted. After much dashing and splashing, my wife revived me and asked why I had fainted. I said, "What did you say just before I passed out?" She had said: "Look out, you are about to sit on a needle."

Maybe It Would Be Better to Start the Story From Scratch

Capt. Charles Weiblen went to the Kentucky Derby this year, but at racing time he was unable to run as he was scratched! How, Chuck?

Capt. Ralph Hillier is the proud owner of a new boat. You are liable to meet him any day—all soaked.

Capt. S. Carey Pierman doesn't get home so often now that we have a tire shortage. Says he misses his pigs. I miss the good

(Continued on Page 6, Col. 5)

Prairie Dog Mo's Mail Intercepted

In the publishing business, the question often arises as to what is, or isn't, news. Several years ago, some likely scribe burst forth with the following classic which is literally packed with the vitamin known as truth and all of its complexes: "When a dog bites a man, that isn't news; but when a man bites a dog, it's front-page stuff."

A parody on this famous summary of truth is, "When one run-of-the-mine person writes a letter to another, that isn't news; but when one air line pilot corresponds with another, that's something to talk about." It's rare, that's what it is!

Air Line Pilots' Obsession Against Writing Explained

The reason the air line pilots have such an obsession against reading and writing in any form, whether it be the "I-now-take-my-pen-in-hand" variety, chiselings on rock, or making Egyptian hieroglyphics, is because, well, if you're ever lifted a copy of the Civil Air Regulations or if you've ever seen an air line pilot's mailbox after an absence of a few hours on a trip—that's the answer. The reason he gets so much mail is because everything in the industry is blamed onto him, but in order to make it official, it has to be in writing—hence the volume. This eventually mounts to bales and bales of printed pages which must be riddled out for the purpose of determining the number of demerits that are assessed against each air line pilot—mounting into trillions.

Introducing the Great Prof. Ilsey Pilsey

So much for mind-wanderings and getting back to this piece: Recently a letter written by the late Johnnie Graves to his friend of the great open spaces, Prairie Dog Mo Bowen, came into the hands of Professor Bud Gorman, close friend of the Great Professor Ilsey Pilsey. Probably the common bond between these two great men (Prof. Gorman and Prof. Pilsey) is that one is a student of science and one is a student of ornithography. Science and ornithography—what could stop a combination like that?—don't worry, nothing does, and they stop at nothing.

Anyway, the Great Professor Bud Gorman has given this very rare letter exclusively to the AIR LINE PILOT, all rights reserved (the selfish so-and-so's), including any rights that Professors Ilsey Pilsey Bud Gorman and Prairie Dog Mo Bowen, currently, retroactively, or forthwith, their guardians, beneficiaries, legal representatives, ALPA representatives, living or dead, may have or may have had—so what?

Following is the letter. Anyone caught with this missive in his possession will be prosecuted to the fullest extent of the law or anything else that anyone may have in mind, or is able to grasp in his claws. Signed, THE CLAW. On with the letter:

* * *

Dodge City, Kan.
March 5, 1881

Prairie Dog Mo Bowen,
Denver, Colo.
Dear Prairie Dog:

Well, sure was glad to hear from you and see you made it

(Continued on Page 4, Col. 1)

"To fly West, my friend, is a flight we all must take for a final check."

In Constant Memoriam

Accidental

Active

Adams, John B.—U. A. L.
Anderson, Lloyd—U. A. L.
Andert, Paul A.—U. A. L.
Barrett, Joseph C., Jr.—P. A. A.
Barron, John M., Jr.—A. A.
Bickford, L. A.—Panagra
Bigelow, Ed.—U. A. L.
Blom, Edwin W.—U. A. L.
Bogen, W. L.—W. A. E.
Bohnet, Frederick L.—T. W. A.
Bolton, Harvey F.—T. W. A.
Bontrager, C. M.—R. A. L.
Borchers, Adrian—P. A. A.
Bowen, J. E.—T. W. A.
Bowen, Lewis L.—B. A.
Brandon, James L.—U. A. L.
Briggs, Francis W.—A. A.
Broughton, D. E.—U. A. L.
Brown, D. W.—U. A. L.
Brunk, Paul S.—P. A. A.
Bucher, Charles L.—P. A. A.
Chamberlain, Cassius B.—N. W.
Cohn, Hanley G.—W. A. S.
Cooper, D. I.—A. A.
Cope, Alonzo—Marine Airways
Cox, Floyd—Ludington
Dace, Frank E.—W. A. L.
Davis, Alfred W.—U. A. L.
Davis, Douglas—E. A. L.
DeCesare, Frank—Panagra
De Cesaro, Joseph G.—U. A. L.
Dietz, Stuart G.—E. A. L.
Dixon, Andrew, Jr.—D. A. L.
Dunn, Stephen—Panagra
Fey, Howard—U. A. L.
Fields, Glenn T.—A. A.
Fuller, Ray E.—A. A.
George, Hal—T. W. A.
Gillette, Morgan A.—T. W. A.
Gower, Vernon I.—D. A. L.
Grover, R. Boyd—U. A. L.
Haid, Arthur A.—N. W.
Hale, S. H.—E. A. L.
Haligren, W. A.—A. A.
Hill, George W.—A. A.
Holbrook, Clyde M.—A.
Holsenbeck, W. M.—P. A. A.
Jamelller, Stanley E.—C. A. L.
Jamieson, W. L.—E. A. L.
Jones, Lloyd E.—U. A. L.
Kelsey, Harold J.—A. A.
Kincanon, Ted N.—A. A.
King, George B.—P. A. A.
Komdat, Albert C.—E. A. L.
Lewis, Harry C.—T. W. A.
Livermore, Joe—N. W.
Lucas, Al.—W. A. S.
Lucas, Verne—Ludington
Lynn, John B.—C. & S. A. L.
McMickle, Harold—Panagra
Mallick, Forrest E.—U. A. L.
Mamer, Nick B.—N. W.
Marshall, Gerald V.—A. A.
Merrifield, Austin S.—U. A. L.
Martin, Karl R.—N. W. A.
Montee, Ralph—T. W. A.
Montijo, John G.—V. A. T.
Morgan, Howard R.—T. W. A.
Mossman, Russell C.—C. & S. A. L.
Neff, Harold—U. A. L.
Noe, Earl J.—T. W. A.
Norby, Raymond B.—N. W.
Odell, M. T.—A. A.
*Onsgard, Aiden—N. W. A.
Owens, Clifford P.—W. A. E.
Paschal, A.—P. A. A.
Perry, J. A.—E. A. L.
Person, Addison G.—P. A. A.
Potter, Norman W.—U. A. L.
Pursley, C. H.—Panagra
Radell, R. W.—U. A. L.
Riggs, Russell S.—A. A.
Robbins, Wm. J. B.—A. A.
Rose, John A.—K. L. M.
Rousch, Chas. W.—N. W.
Rust, F. H.—A. A.
Salisbury, Hervey M.—T. W. A.
Sandblom, J. V.—C. P.
Sandegren, Thomas E.—U. A. L.
Sauceda, J. M.—P. A. A.
Scott, P. T. W.—T. W. A.
Scott, Philip C.—U. A. L.
Scroggins, Lowell V.—P. C. A.
Shank, Eugene S.—N. W. A.
Sharpnack, J. W.—U. A. L.
Sheetes, Don K.—Panagra
Sherwood, George C.—W. A. E.
Supple, Robert E.—Panagra
Tarrant, Harold R.—U. A. L.
Terletzky, Leo—P. A. A.
*Thomas, L. E.—E. A. L.
Thompson, A. R.—U. A. L.
Underwood, Stanford L.—A. A.
Vance, Claire K.—U. A. L.
Waldron, Joe—A. A.
Walker, M. A.—P. A. A.
Wallace, Clyde W.—T. W. A.
Weatherdon, Edwin—T. W. A.
West, F. W.—N. W.
Wieselmayer, Otto—P. A. A.
Williams, Wayne C.—T. W. A.
Williamson, P. B.—E. A. L.
Worthen, John A.—W. W.
*Wright, S.—T. W. A.
Young, George S.—U. A. L.
Zeier, Carl F.—C. & S. A. L.

Natural

Blomgren, Lloyd I. — A. A.; Cochrane, Robert M.—U. A. L.; Fife, John A.—C. A.; *Gambee, Harley T. — T. W. A.; Hohag, R. J.—N. W.; Jamieson, Leland S.—E. A. L.; McConaughey, Ira M.—A. A.; Phelps, Henry T.—P. A. A.; Swanson, Axel—A. A.

Inactive

Anderline, Frank W.; Ashford, Ted; Barr, Julius; Burford, Dean W.; Caldwell, G. Q.; Drayton, Chas. M.; Huisman, Herbert W.; Hunter, Lewis W.; Jackson, L. A.; Judy, H. R.; Kerwin, J. J.; Noyes, Dewey L.; Ormsbee, F.; Riddle, Glenn L.; Rouistone, J. J.; Rousch, Usher E.; Shelton, Boyd M.; Stark, Howard C.; Veblen, E. H.; Walbridge, Donald C.; Wheaton, Harold H.; Whittemore, Fred W.; Wolf, John F.; Willey, Sidney L.

Waiting List

Brock, Wm. S.; Kiser, Daniel; Langmack, David F.

Unemployed

Downs, Lloyd; Hays, George L.; Keadle, Floyd E.; Minor, R. I.; Rhiner, L. H.

Active U. S. Air Corps

Darby, James E.; Nelson, Franklin S.; Williams, R. N.

Active U. S. Naval Reserve

Williams, Roy W.

Honorary

Greene, Dr. Ralph; Rogers, Will.

* *Apprentice Member.*

—Glenn L. Martin Photo

EYES OF THE FLEET **Silhouetted against a cloudless sky is shown the new Martin PBM-3, the "Mariner," a gull-winged flying boat reputed to carry a heavy bomb load and great fire power. This type is now in mass production at the Glenn L. Martin Company's plant at Baltimore, Md. The principal trouble with mass production in peacetime is that it produced more than the masses can consume—in wartime it will do the same for Mr. Hitler; his infamous cohort, Hirohito, pretender to the throne of God, and that internationally notorious stooge, "Me Too" Musso.**

Human Sympathy, Let It Spark!

By KEITH MURRAY
Council No. 28, Colonial Airlines
New York, N. Y.

This is my first attempt at this sort of thing, so if you have a spark of human sympathy, let it spark. I thought that I had carefully concealed any aspirations that I had for the job, but one day when I was absent, I was unanimously elected to the position. From reading the AIR LINE PILOT I gather that this is the usual procedure.

Says Reserve Captains Have "Scary" Gaze

The most important item of news to report is the personnel changes. Most of our old-timers are away now and the sooner back the better. Fred Clarke is with the Navy; Hewitt Mitchell, Fred Johnson, Roy Ralston, Ralph Kugel, Army; Rand Churchill, I.C.D.; and Fred Smith, deciding that the waves on Lake Champlain were not big enough, went over to Export. This put Bob Hawley and Norm Uttenweiler on as full-time captains, with Roe Nemmers implacably waiting for extra sections or for one of us to miss a schedule. I don't know why it is, but every time that I see a reserve captain looking at me I feel as though I have one foot in the grave!

What Word Causes Pilots to Get the "Heebie-Jeebies"?

New first officers include Lewis Orton, James Starr, and Charlie Wenzel.

There are a few stories going around about these last-named gentlemen, some of which are worth passing along. On his time off one of them was at home wrapped in moody conjecture as to his future with the air lines when his wife came in full of news about the clearance sale at Macy's. She got as far as "clearance," when he screamed, jumped up, and ran out. Didn't come back until early next day, they say.

Up and Down the Line

With regard to our operations, at the date of mailing (June 8), we still have enough ships to maintain our schedules and the facilities along the LG-UL route are being improved. Albany, of course, is open day and night and a landing there doesn't mean a new set of linings any more. A new airport has been started at Glens Falls, should be ready this year. Burlington has been extended with a new NW runway, and Montreal is resplendent with 5,000-foot runways and a new Administration building. New York is adding some new curlicues at the ends of the runways and improving generally. There is some talk of a new NY airport with 10,000-foot runways. That will be the day!

Air Line Poet Laureate

Just had news that Frederick Dodge Clarke is doing very well in the Navy. This air line has been just a bit on the dull side since that gentleman left. We miss his poetry for one thing. This is one of his in lighter vein:

Ten thousand feet over the
Hudson,
Or high over Burlington Bay,
The reason why some of our
stewardesses are buxom,
Is that they eat a little from
each passenger's tray.

There was another, I remember, the title of which was, "Here lies the body of Fred Clarke, starved to death on Trip 5." It was suitably illustrated with a gravestone with R.I.P. on it.

His in-range contacts were something of a trial to the tower men. Fred never admitted it, but I believe that his ambition was to report in-range over a point unknown to the tower. This is a difficult business and Fred sometimes had to resort to old battlegrounds now occupied by apartments or something, like the Nutley Velodrome remembered only by the older inhabitants. A T C were known to cower when brought to task about some unreported traffic on the airway.

Memorandum of Understanding

(Continued from Page 1)

section in the pilots' agreements and the new wartime law, H. R. 6799 (Public Law No. 535), governing the hours that an air pilot may be permitted to fly on an air line in any month, and salaries paid to copilots for flying done in excess of 85 hours monthly.

The conference was cordial, effective, and productive of satisfactory results, speedily concluded. The general feeling relative to handling pilot-carrier relations similarly in the future appears to be that it will work out satisfactorily on certain questions, while on certain other questions it would be far better to continue the past practice, which was for the carriers to meet separately with the duly designated representatives of their pilots. In any event, meeting in the manner such as took place on June 2 has long been talked of but this was the first time it was ever done. It worked out quite well, and the Memorandum of Understanding that was negotiated at the Blackstone Hotel on June 2 reads as follows:

MEMORANDUM OF UNDERSTANDING
between
THE AIR LINES Listed Herein
and
THE AIR LINE PILOTS in the SERVICE of THE AIR LINES Listed Herein as represented by
THE AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

(a) It is understood and agreed by and between the parties hereto that the appropriately numbered sub-section of the said agreement (the existing pilot contract of employment) between each of the Carriers and the Air Line Pilots in the service of each of the Carriers as represented by the Air Line Pilots Association, International, which provides as follows: *"Eighty-five (85) hours of flying shall constitute the monthly maximum for pilots"* will not be considered in effect inasmuch as H. R. 6799 was approved on April 29, 1942, and is now in full force and effect and this understanding is made subject to all terms and conditions of H. R. 6799, and at the expiration of said Act the provision of this Memorandum of Understanding shall be null and void, and thereafter the said appropriately numbered subsection of the said Agreement shall be automatically in full force and effect.

(b) For the purpose of identification the sub-section of each of the employment agreements referred to in paragraph (a) hereof is as follows:

Braniff Airways, Inc.,	Sub-Section	15-a
Colonial Airlines, Inc.,	"	" 16-a
Chicago and Southern Airlines, Inc.,	"	" 16-a
Continental Air Lines, Inc.,	"	" 16-a
Delta Air Corporation,	"	" 17-a
Eastern Air Lines, Inc.,	"	" 16-a
Inland Air Lines, Inc.,	"	" 16-a
Mid-Continent Airlines, Inc.,	"	" 15-a
National Airlines, Inc.,	"	" 16-a
Northeast Airlines, Inc.,	"	" 16-a
Northwest Airlines, Inc.,	"	" 15-a
Pennsylvania-Central Airlines Corp.,	"	" 16-a
Transcontinental & Western Air, Inc.,	"	" 16-a
Western Air Lines, Inc.,	"	" 16-a

(c) Pursuant to this Memorandum of Understanding it is further agreed in addition to the monthly salary provided in the applicable employment agreement, each Copilot shall be paid one-eighty-fifth (1/85) of the applicable monthly salary each month for each hour flown in excess of eighty-five (85) hours per month.

(d) Paragraph (c) hereof shall be subject to the provisions contained in the duration and notice of change section of each of the respective employment agreements between the individual Carriers listed herein and the Air Line Pilots in the service of such carriers, as represented by the Air Line Pilots Association, International, provided; however, that paragraph (c) shall be null and void at the expiration of H. R. 6799.

DATED AT CHICAGO, ILL., this Second day of June, A. D., 1942.

EFFECTIVE June 1, 1942.

For the Carriers listed in Paragraph (b) By AIR LINES CONFERENCE COMMITTEE
/s/ S. L. Shannon, John A. Collings, Robert M. McCraith.

For the Air Line Pilots Association, International
By /s/ David L. Behncke, President.

ATMOSPHERIC TURBULENCE

The subject of atmospheric turbulence has long been one of interest to the air line pilots and aeronautical engineers. Turbulence is associated directly with engineering stress analysis, piloting, and passenger comfort, which brings it within the scope of almost universal interest in air transportation. At the suggestion of the Air Line Pilots Association, Mr. L. P. Harrison, a leading meteorologist of the U. S. Weather Bureau, has prepared an interesting and very informative article on the subject of atmospheric turbulence, which will appear in the AIR LINE PILOT in serial form. The sixth installment follows:

Overwhelming downdrafts of the character described above are most frequently to be found in the central and rear portion beneath and within the base of active cumulonimbus (thunderstorm) clouds. Such occurrences are likely to present their most violent manifestations when the thunderstorm is induced by the simultaneous operation of cold front and orographic (slope) lifting upon a warm, moist, tropical maritime air mass. Accordingly, thunderstorms in mountainous regions and cold-front zones contain among the most extreme turbulence which may be encountered in nature. *There is no safeguard against the haards of these powerful disturbances better than complete avoidance of them.*

In considering the characteristics of thunderstorms near mountains, it is necessary to recall that the principal lifting of the air occurs on the slopes of the windward side, hence upward convection will be most intense on that side at high levels and over the crest of the ridges, but failure of the currents will be prevalent on the leeward side. This situation, in conjunction with the effects of heavy rain, leads to creation of complex currents which give rise to dangerous flying conditions. Thus, when a warm, moist, saturated air mass is mechanically forced to ascend the steep slopes on the windward side of a mountain, torrential rains and "cloudbursts" are produced. But, despite the general upslope motion of the air mass, powerful local downdrafts develop in association with the relatively cold, heavy downpours. On the other hand, huge masses of rain which were sustained by the general ascending motion of the air mass on the windward side are deposited on the leeward side near the mountain crest because of the abrupt termination of the upward motion at the top of the slope. As a result of this, heavy downpours accompanied by strong descending currents occur on the leeward side for some distance beyond the crest. Apart from these effects, there is present the strong convective activity in the unstable saturated air that forms the upper portion of the thundercloud.

The horizontal roll cloud near the base and toward the leading edge of thunderstorms is a region of most violent confused currents where it is practically impossible to maintain control of an aircraft. Immediately ahead of and beneath the leading half of the roll cloud there exist strong, turbulent ascending currents, while immediately behind the cloud and to some extent beneath its rear half exist strong, turbulent descending currents. This is a region to be carefully avoided, since the currents may tend to draw nearby airplanes into the maelstrom of the cloud.

If flight must be made through a thunderstorm, it is considered preferable to fly at somewhat reduced speed (see next paragraph) in the region and a small distance above the top of the roll cloud and just above any accompanying strato-cumulus cloud deck. Less turbulence may be expected in this region than at greater heights where the rising core of the thundercloud may achieve high velocities as a result of continued acceleration through the cloud. However, if heavy rain and strong descending currents develop in the region of the thunderstorm under consideration, strong turbulence will be present there also, for it is the relative motion between descending and neighboring ascending currents which generates rough air conditions.

Flight in rough air should probably be effected at an operating speed placed about midway between the stall speed, flaps up, and the design maximum speed for level flight, with both figures based on the normal gross load condition. Such a formula yields values of operating speed ranging from about 125 to 140 miles per hour for currently used transport airplanes (1941). Some authorities consider the desirable method of reducing speed is to lower the landing gear. There are objections to reducing speed by reducing engine power alone, for there is a risk of inducing the formation of carburetor ice or of fouling the spark plugs, with the undesirable result of insufficient power being available when and if needed.

June Was Busy Month for Everyone—Including ALPA

The month of June proved to be

(Continued on Page 6, Col. 1)

Globular Passengers Over a War-Troubled World

Serving democracy, science, commerce, and humanity, Diplomat, Undersecretary of State Sumner Welles; Presidential confidant, Harry Hopkins; and U. S. Air Force Chief, Lieut. Gen. H. H. Arnold, are shown on the gangplanks of world-girdling PAA Clippers which carry them to and from the far-flung diplomatic and battle fronts of World War II. No matter what we think of the god of war, Mars, he and his restless sword have certainly prodded air transportation into the No. 1 position as a medium of travel, measured only by globular limitations. The die-hard admirals are finally conceding that air power carries the necessary wallop to win the war. They would never have quit arguing had they not been shown—and how! Reasoning was out of the question.

Human Arrow

(Continued from Page 2)

across the Arickaree without losing any bulls in the quicksand. Sorry you couldn't take my mules —they are faster than bulls and don't eat as much.

Rip-Roarin' Saga of Rawhide Rawlins

If you do any fancy ski work, be sure you tie some rope around the front runners to act as a sort of rough lock when slidin' down them Colorady steep slopes. Even that won't stop a fast trip sometimes. I mind the time Rawhide Rawlins was snowed in in the Big Horns one winter. He was above timberline lookin' for meat when the storm got worse and he knew he was in for it.

His only way out was on skis and he was hungry and didn't have no skis, so he took out his knife and whittled out a pair from some lodge pole pines, when he had rolled down to where the timber was. He greased them up with the last of his bacon rind, and tied some belt leather around the runners as a rough lock, and away he went for the low country!

Well, he started out easy and began to pick up speed about the time he saw a herd of elk in a bald spot about a mile below him. He figured he could slide down near them elk and get close enough for a shot and there he would camp until the storm let up.

He was really getting under steam now and the rough locks wasn't doing no good because out of every 100 feet he was about 92 of them in the air. Pretty soon he landed straddle of a lodge pole pine that leaned a little down hill and slid clear up to the top, scrapin' all the branches off as he went.

Rawhide Rawlins, the Human Arrow

Well, he shot off the end of that pine tree like an arry out of an Injun bow and the next time he hit the ground he was goin' some! There was quite a windfall of them lodge poles, and Rawhide was shootin' off the end of them when he wasn't sailin' through the air. Finally he came down after what he knew must be a world record jump and there under him was the bald spot and the herd of elk.

Well, Rawhide lights right in the middle of the biggest bull in the bunch and knocks him end for end. The bull folds up and Rawhide keeps on goin'; he has so much speed it would take a dozen little interruptions like hittin' a bull elk to stop him. When he finally winds up at a stop, it takes him three days to work back up to where the bull was, and there the elk lay deader than a poled ox. Rawhide got down and ate raw liver like an Injun.

Rawhide says skis are all right, but he thinks Injun webs are better if you ain't in a hurry and the slope is steep.

Well, Prairie Dog, give my best to the little woman, and when you get tired come on home.

Best wishes, *Johnnie G. Cop.* Bud Gorman, TWA 3 KC

FLASH! — Strange as it may seem, believe-it-or-not, Imagine That, and a whole flock of etc.'s, etc.s,' the Great Professor Bud Gorman has been appointed news correspondent for Council 3, TWA. Hold your hats—here we go again!

CAB Vice Chairman Goes to War Dept.

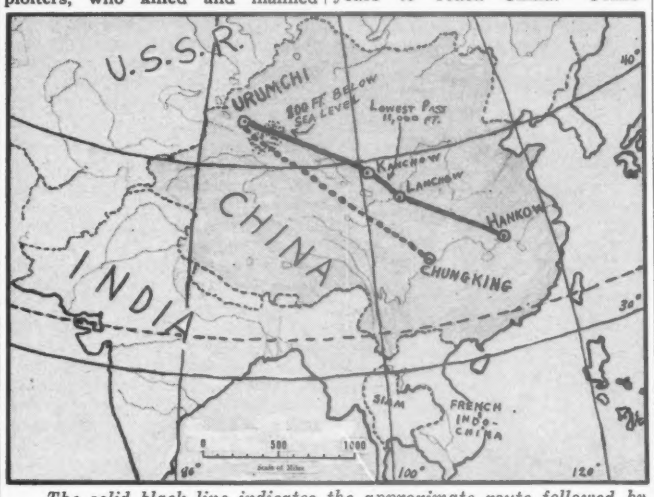
The Civil Aeronautics Board recently announced the temporary assignment of the vice chairman of the Board, George P. Baker, to the War Department, detailed in the Office of the Quartermaster General.

Dr. Baker became a member of the CAB in August, 1940, and was appointed vice chairman on Jan. 1, 1942. He came to the Board from Harvard University where he obtained his Ph.D. in economics in 1934, and had been teaching since that time.

Dr. Baker's assignment was effective May 18, 1942.

A Modern Marco Polo Flies to Aid China

Almost a decade ago, Capt. Royal Leonard, then a TWA pilot, decided that the comparative peace and quiet of flying in regularly scheduled air line service over America's great divide, commonly referred to as the Rocky Mountains, was too tame. To satisfy his urge to find out what lies beyond the horizon, Leonard just naturally disappeared from these parts, and turned up in China. He manages to keep in touch with his many friends in the States by contributing occasionally to the pages of the AIR LINE PILOT. Upon his return several months ago, when asked if he had met that elusive and dangerous goddess, Adventure, while away, he replied: "What do you think?" China has been war-torn for years, first it was a struggle for power between Chinese warlords, and then came the Japanese exploiters, who killed and maimed until the rivers were red with the blood of their innocent victims. Leonard was through it all. Following is the first installment of an interesting story written by him in Hong Kong October, 1940, which was recently given exclusively to the AIR LINE PILOT. The second installment will appear in the July issue.



The solid black line indicates the approximate route followed by air trail blazer, Pilot Leonard, in the first flight described on this page. At the far end of this route is Urumchi, an almost unheard-of metropolis deep in the vastness of little-known China. The dotted line depicts his second flight, about which Leonard tells in next month's installment.

If you would search the world over for a spot the greatest distance from any seacoast, it would be found somewhere near Urumchi, or Ti Wah, as the Chinese call it. It is in the province of Sinkiang, which is north of Tibet, west of Mongolia, and south of Siberia.

As Generalissimo Chiang Kai-shek's personal pilot, my flying orders had often taken me to many unheard-of places on relatively short notice. Nevertheless, when he said I must take a certain Mr. X, a prominent Russian returning to Moscow, as far as Urumchi departing the following day, my headache could not have been greater had I been asked to make a trip to the moon.

Flight Must Be Kept Secret

I had been warned that this trip must be a secret. It is difficult to procure maps on such short notice, yet keep the destination a secret. My British war office maps were good as far as the northwest corner of Tibet. All that could be found covering the space beyond was a general purpose map 128 miles to the inch, and a Chinese map not much better.

Copilot a Poor Flier But Spoke Three Languages

Tarantin, my copilot, knew very little about flying except that he had learned to hold the plane straight and level for as much as ten minutes at one stretch. His ability as a mechanic was of little higher order. He could take care of the airplane, provided that routine servicing was all that was required. His outstanding qualities for this flight were that he spoke both Chinese and Russian.

He was one of the former Cossacks who had made the trip overland along with a band of White Russian refugees a few years after the Russian revolution. However, much to my consternation, when I needed a guide the most, his last qualification, instead of being an asset, proved to be a dangerous liability.

Had Been One of Historic Band, 20,000 Strong, Which Made Trek

He had been one of that little heard of but historic band of refugees who started out 20,000 strong, of which only 500 lived to see China. The fact that many of the men were former Cossacks under the Tsar and knew how to fight probably saved them from complete extermination. Not only did they have to fight hunger, thirst, starvation, and Soviets who were determined to prevent their escape, but were set upon from all directions by robber bands as well as Mongol tribesmen.

It required something like two years to reach China. Consequently, when returning over this route sitting in a comfortable seat and riding high in the air, his perspective was greatly warped. When, according to my dead reckoning, as well as the few features on the map which coincided with the terrain, I concluded that I must be over Ansichow and should head for Hami, he assured me that I must be mistaken because he remembered the river being so wide at this point that the horses had to be taken across by boats. All we could see now was a small desert stream.

Dead Reckoning Wins Out

If he was right I was completely lost. Dust storms were now cutting down our visibility. I couldn't afford to make a mistake here. It is with certain misgivings that a pilot decides to stick to his dead reckoning when it runs contrary to the directions of a guide who thinks he knows the terrain, but had I done otherwise on this as well as several other occasions, we would still be listed among the lost and missing.

Mysterious Mr. X Knew Much

Our passenger, Mr. X, amazed me by knowing so much of my personal history. Instead of asking how many flying hours I had, where I learned to fly, etc,. he seemed to delight in letting me know how much he knew of my past, even down to what I considered uneventful details. Then it suddenly dawned on me that I must have been investigated before I was ordered on this trip.

All this worried Tarantin. If Mr. X knew that much about me, how much did he know about him? Did he know of his past conflicts with the Soviets? He consoled himself with the thought that if he spoke only in English he might conceal his nationality. This obsession seemed to grow in magnitude as the miles were left behind. By the time we landed at Suchow, where we were to spend the night, he began to think he had concealed his identity.

Tarantin Makes a Slip of the Tongue

When Mr. X spoke to him in Russian for the first time Tarantin answered in Russian and had completed half a sentence before he realized his mistake. He suddenly covered his mouth with his hand. His face took on a startled and woebegone look that could not have been much different had he been shot, and his features froze in rapid sequence. Mr. X smiled as though he knew what Tarantin had been thinking all along. Then, to make matters worse, Tarantin embarrassed himself numerous times that evening by talking Russian to me and to Mr. X in English, and finally like a person stuttering, tried to talk in two languages at once.

Gobi Desert Is "Mile After Mile of Nothing"

Although I had a flying acquaintance with most other deserts of the world, this great Gobi Desert dwarfed them all. It was mile after mile of nothing. For almost a thousand miles the only sign of life below was two camel caravans, except near the few cities like Hami, watered by the melting snows of neighboring mountains. The only weather to worry about was the huge clouds of dust that seemed to come from nowhere.

Near Turfan there is a valley 800 feet below sea level. In many ways it resembles our famous Imperial Valley of California. Very seldom does rain fall here, but thanks to the melting snow on the 15,000-foot mountains 80 miles to the north, the water supply is abundant. Due to its unique combination of weather, fertile soil, minus elevation and water supply, this valley is famous for its fruit, especially the Hami, or Emperor, melons and luscious grapes, larger than the average plums.

Hami Melons Once Delicacy for Chinese Emperors

These Hami melons resemble our cantaloupes and honey dew melons in taste, outside texture and smell, but are equal to our watermelons in size. A few I saw were about 36 inches long and 12 inches in diameter. If you searched the world for a tastier melon it would be hard to find. They were sometimes referred to as Emperor's melons because, according to what I was told at Urumchi, the rulers of Peking had a constant supply brought to them by camel caravan during the winter months. These melons could withstand temperatures below freezing and an unusual amount of jolting without damage.

A unique air shot, taken of a rarely photographed part of the Gobi Desert, showing China's Great Wall extending in both directions from an ancient walled fortress city. From this photograph can be gained some idea of the barren vastness that has through the centuries halted would-be exploiters of the oldest civilization known to man. When we feel the pinch of the draft in World War II, it is comforting to reflect that when the powerful Chinese Emperor, Ch'in Shih Huang Ti, built the Great China Wall more than 2,200 years ago he drafted every third able-bodied male to toil for China until its completion.

Urumchi, Where West Meets East

If ever there was a place where the West meets the East it is at Urumchi. Among the many races gathered there are found Russians, Persians, Moslems, Chinese, Turks, and Mongolians, along with their many mixtures.

Eskimo Glamour Girls Dangerous

By T. J. JOHNSON
Council No. 48, C&SAL
New Orleans, La.

The most recent member of Council 48 to be called to active duty was Capt. "Bill" Frey, who is also a Captain in the Army. Bill's cheery smile will be missed by his fellow workers and friends. His place as Chairman has been filled by "Skip" Sterling, who has taken over the many duties and is being kept mighty busy.

We, as everyone else, have been affected by the clipping of schedules, but hope for other developments that will take care of the situation.

The Ducks in City Park Can Now Be Happy!

"Hap" Anderson and T. Wagner have returned to New Orleans after a month flying out of Memphis on the freight run. Glen Doolittle and Ralph "Duck" Eames are now taking their places. Tom Bridges, who has been on that run since it started, remains there. The only thing Tom doesn't like about it is that after planting a large victory garden he can't watch it grow. Glen would like to move, but says he is going to keep his family in New Orleans until they get the benefits of some tomatoes off those plants he has been nursing so faithfully. As far as Eames is concerned, he has made the ducks in City Park happy. They can carry on their private lives unmolested now, as Eames is in Memphis.

The prize gardener on the line is Gene Croft. I believe Gene calls it a "victory" garden, but anyone seeing his garden would think he was going into the vegetable business. He is growing just about everything, including watermelons. A picture of his garden would make the front-page of Home and Garden Magazine any day.

Scribe Lauds the Boys on Active Duty

There have been few authentic reports from Jack McKee, Rowe Davidson, Gene Fletcher, and Lonnie Shannon, who were among the first called to active duty. One of the boys on PAA ferry work came back and said he had lunch with Jack and Rowe in (censored).

We don't know exactly where they are now, but you can bet your bottom nickel that wherever it is they are doing some mighty tough and dangerous flying. Any of us who are inclined to do a little beefing now and then because things aren't the same, should remember those who went across. They are not getting much money, living expenses are very high, and the danger part of it does not only apply to the flying or bullet angle. I'm not just talking, as I have been in those countries and as far as I'm concerned, they are bad enough for a white man even in peacetime!

Congratulations are in order for Bob Werth and Slim Stauber. Both checked out and both had a taste of the left side, before the schedules were cut. Funny thing about Bob, though; he played a par game of golf the day after his checkout and was more pleased and excited over that than his checkout.

John Maynard has just become a member of ALPA. We certainly welcome fellows like John in our organization.

Eskimo Papas Are Tough Customers

R. C. Clayton and myself have been doing some barnstorming for Uncle Sam. One of our stops was Minneapolis, where we talked to some of the NWA boys about their Alaska run. They say Ed La Parle has sort of become fascinated with the female species up there. We can't blame Ed because the pictures he sends back of his girls show them to be pleasingly plump and warm-looking, which must be nice in the cold country. However, I understand that when any man pays too much attention to an Eskimo girl, her papa sees to it that the man doesn't ever leave the country! Take it easy, Eddie, NWA needs pilots like you.

TECHNICALLY SPEAKING

ALPA COMMITTEE'S REPORT ON ULTRA-HIGH FREQUENCY RANGE FACILITIES

For the past several years the Technical Development Division of the Civil Aeronautics Administration has been doing a great deal of experimental work on the development of the new ultra-high frequency range facility. During the fall of 1941 these developments reached a state of completion which appeared to warrant service tests by all those interested. For the furtherance of this purpose, Mr. John Easton, Chief, Technical Division, made the necessary arrangements for representatives of the Military Services, the carriers, the air line pilots, and anyone else interested, to appear at predetermined periods at the CAA's experimental station at Indianapolis and fly the CAA's Boeing 247, which had been fully equipped with all of the UHF beam signal receiving apparatus. The purpose of these test flights was to become thoroughly familiar with all of the characteristics of this new facility —both favorable and unfavorable—and to make a report to the CAA of the findings of such tests. ALPA's Air Traffic Control & Airway Aids Advisory Committee immediately evidenced keen interest, and after giving this new facility numerous test flights and a great deal of careful study, their findings and conclusions were included in a letter to Mr. Easton, a verbatim copy of which is printed in this column.

Of ALPA's ATC & AAAC members who participated in the testing of the UHF radio beam facilities, Mr. Easton had the following to say:

"The report of your committee shows the thorough and careful consideration given this matter and we greatly appreciate this help. The Administration personnel concerned are now studying the report and, upon completion of this study, it is Mr. Bourne's intention to reply to you in detail."

This subject has been one of keen interest and concern to all air line pilots for a long time. A careful reading of the following letter reflects a clear word picture of what this is all about.

* * *

April 30, 1942.

Mr. John Easton, Chief
Technical Development Division
Civil Aeronautics Administration
Washington, D. C.

Dear Mr. Easton:

During the fall of 1941, on Nov. 25, 26, 27, and Dec. 17, members of our Air Traffic Control & Airway Aids Advisory Committee visited the Civil Aeronautics Administration's Experimental Station at Indianapolis at your invitation for the purpose of testing the new ultra-high frequency range facilities developed by your Division. On Feb. 2 of this year, a member of this committee flew special high-altitude tests of this facility.

At a recent meeting of the Committee, the reports of the members who tested this UHF development were discussed at great length, and following is their formal report.

Committee Urges "Try-Out" Tests

As a preface to this report, the Committee wishes to urge strongly that the CAA make arrangements to submit this new facility to a "try-out" service test period on an experimental airway before contracts for equipment are made or any large-scale installations begun. The present radio navigational aids are sufficiently adequate and reliable to allow any necessary amount of time to be devoted for complete service testing of this facility on a UHF experimental airway.

(1) Of the various developments tested, the Committee is of the opinion that the two-course visual range with aural sector identification, when proved by service tests on an experimental airway, will be the most suitable development to replace the present low frequency four-course aural facilities. With respect to the aural feature of the two-course visual range, the Committee recommends that the interlocking "D" and "U" continuous sector identification method with interruption for station identification every 30 seconds be adopted, and also, that station and code identification be transmitted in code letters. It was felt that special voice transmissions of less than two minutes duration should not be interrupted by sector and station identification.

Proposed UHF Station Identification System Praised

(2) The Committee was in full agreement that the blue side of the two-course visual range should *always* be included in the sector which includes True North.

(3) The proposed ultra-high frequency station identification system was given much praise and was recommended for adoption by the Committee. Some points were raised, however, as to whether or not there would be sufficient frequencies available, even when using alternates, to serve such terminals as La Guardia, and others.

(4) Ranges that are primarily for the purpose of marking the airways should be installed without regard to whether or not one of the range legs will run over a principal runway of an airport; also, such ranges should be on the great circle routes wherever possible unless such arrangement swings airways away from main arteries of air travel on which are located principal air line terminals. Rather than breaking an airway abruptly to extend a leg of a beam down a principal runway of a principal airport, the Committee felt that the airways should be kept as straight as possible and that supplementary ranges and other facilities should be installed to provide ways and means for air line traffic to get off the main airways and on to the off-the-airway fields.

Stations Should Be Not More Than 92 Miles Apart

(5) From data gathered during the test from which the following graph and table were prepared, it is found that range stations should not be more than 92 miles apart, and preferably less, to insure sufficient signal strength at the halfway point between two stations at 1,000 feet, and from the pilot's standpoint, coverage at 1,000 feet would be most desirable. However, in view of the fact that the nation-wide station identification and frequency allocation system will be based on 100-mile intervals, and since there is a possibility of the signals of stations less than 100 miles apart interfering with each other, the Committee feels that having stations 100 miles apart will not create a dangerous situation. It was pointed out that en route flying at 1,000 feet is not very common, nor is the area in which the signal strength is doubtful (shaded area in chart) of any appreciable size, and for these additional reasons, the Committee feels that the positioning of range stations 100 miles apart will present no great difficulties.

"A test for limit of range usability with altitude was made by flying away from the station in thousand-foot steps along the beam until the indicator needle became erratic and settled unsteadily in the center, and the current measured by the intermediate frequency amplifier meter rose to 5.4 to 6.0. The graph on this page is made up from data gathered during this test:

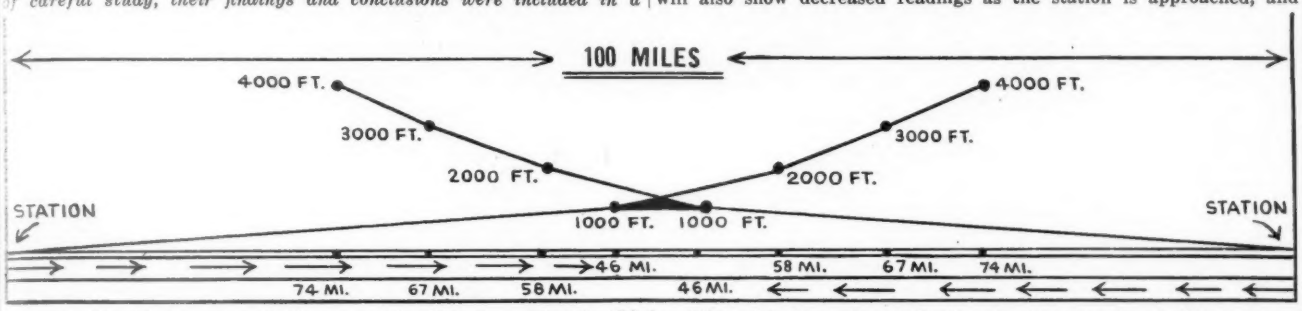
LIMIT OF USABILITY CHART*

"The characteristic of bending upward as reflected by the chart above has an important bearing on the distance between stations to be installed along an airway. Assuming terrain and installation conditions such as those at Indianapolis, and antenna and receiving installations as efficient as those used in the CAA Boeing NC11, the following table of allowable distances between stations is submitted:"

Coverage Desired (All Above)	Distance Between Stations (Conservative)	(Maximum)
1,000 Feet	80 Miles	92 Miles
2,000 "	105 "	116 "
3,000 "	125 "	134 "
4,000 "	135 "	148 "

**Entire area above the two plotted lines is USABLE AREA.*

(6) As determined from the test reports above, the Committee recommends that the IF Meter when installed in the cockpit be so placed that the pilot can easily read it, because a high reading will show that he is reaching the limit of usability of the range, that the station is not tuned in properly, or that the station is off the air. It will also show decreased readings as the station is approached, and could possibly be used to indicate rate of approach and distance away from the station. If possible, it would seem very desirable to have a red light on the instrument and so connected with the IF Meter or circuit as to show at a glance and with the one instrument when the limit of usability of a range is reached.



During the discussions on this subject, the suggestion was made that the red light be supplemented by an arrangement whereby the visual range indicator needle would fall to one side or the other to show that the instrument was not being actuated, rather than having it settle steadily in the on-course position, which could lead to dangerous mistakes. Having the indicator needle fall off completely to one side or the other would serve as a positive indication of the inoperative condition of the instrument and would be an added precautionary indication should the red light indicator become inoperative. In any event, some positive indicating device should be incorporated in the installation of the two-course visual range instrument so that the pilot will know that it is operating.

Warns Against Abolishing Automatic Direction Finders

(7) The Committee wishes to recommend strongly that the use and importance of Automatic Direction Finders be not relegated to a position of decreased importance because of the UHF radio range development, which, as we understand it, because of its high-frequency characteristics will not actuate Automatic Direction Finders. As a supplementary homing device, the ADF has been found by the pilots to be of primary value as a navigational instrument, especially for course-checking purposes. When the UHF ranges are installed universally, a sufficient number of low frequency, high-powered stations should be properly scattered throughout the nation to serve adequately the Automatic Direction Finders, and actuate them effectively so that this aid to navigation will not be impaired.

(8) The Committee recommends that further experimentation in antenna design and placement on aircraft be done in the belief that much of the difficulty experienced with misbehaving aural course could be attributed to such antenna problems. One of the Committee members reported that while test-flying the aural range, he bisected the aural on-course beam at right angles on a number of occasions and found the on-course sector identification signals to be in proper relation to one another and working properly, but that when he crossed the on-course at an angle, there just wouldn't be an aural course and that the D would be where the U should have been, and vice versa. This would tend to indicate that the blanketing effect of wing and tail surfaces between the antenna and the station causes the difficulty rather than any malfunctioning of the transmitter or discrepancy in the signal pattern as transmitted.

(8a) A related question of antenna placement, is that concerning the size of the cone of silence. We found the aural cone to be smaller than the visual cone, the latter being about .9 of a mile through at 3,000 feet, fanning out to 1.87 miles at 6,000 feet, 4.1 miles at 12,000 feet, and about 5 miles at 16,000 feet. This visual cone is wider than that on ranges now in use and is something like the cone on early range stations, but it does not appear to be excessive. However, due to the blanketing effect of the metal surfaces of an aircraft, it is reasonable to assume that the size of the ship and the placement of the antenna will create cones of silence of different widths.

(8b) Because of the character of the UHF signal, the terrain over which it is transmitted, and the related antenna design and placement problems, this report must necessarily confine itself to the performance of the facility as tested in the CAA Boeing NC11 at Indianapolis. For this reason, we recommend that experimentation continue on the proper design and placement of the antenna in relation to the type and size of the commercial ships that will use these facilities.

Committee Favorably Impressed with Two-Course Visual Range

Generally speaking, the Committee was favorably impressed with the two-course visual range. This system lends itself to more accurate interpretation by the pilots while maneuvering under instrument conditions, and this in turn minimizes the chance of error while engaging in such maneuvers.

Judging from the performance of the experienced pilots who test-flew the visual range, it was found that it was easier to fly an accurate course by referring to a visual indicator than it is to fly an aural course by listening to signals received through earphones. This is probably due to the fact that there is a certain amount of lag experienced in the human mechanism in reacting to an aural signal that is not experienced when reacting to a visual signal, as represented by an instrument needle. Another factor appears to be that there never can be any doubt in what a normal person sees, whereas a pilot's aural sense can become dulled through fatigue, etc., so as to create doubt in his mind

(Continued on Page 7, Col. 2)

Fly Safe, Save Planes; Says CAB

(Continued from Page 1)

sense traffic rules should help you be patriotic. These rules are:

1. Observe local field traffic rules.

2. Always make sure there is no danger of collision before taking off.

3. Circle an airport to the *left*, unless local regulations specify otherwise.

4. *Always maintain a straight approach course for the last 1,000 feet before crossing the airport boundary.*

5. Follow the circuit rule when making a contact flight within three miles of the center of an airport if you are below 1,500 feet.

6. Traffic coming into or leaving a control airport takes precedence over traffic within the control zone of the airport.

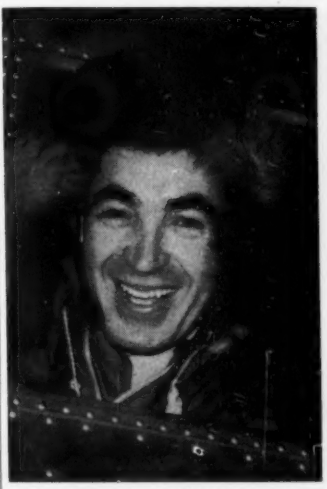
7. When starting or running an airplane engine always station a competent operator at the engine controls within the plane, have chocks under the wheels, or an adequate parking brake fully set.

8. When approaching a landing area where there is a congestion of people, planes or autos proceed with caution and make sure that the landing area is "open."

9. Pertinent today is the CAR advice; on takeoffs or landings over any high explosive danger area always make sure that an emergency landing can be made outside of such area.

ARE YOU WEARING AN ALPA EMBLEM! — AVAILABLE AT HEADQUARTERS FOR 50c EACH.

In Line of Duty



CAPTAIN GENE SHANK, WHOSE SKILLFUL HANDLING IN THE FACE OF GREAT PERSONAL PERIL IS CREDITED LARGELY WITH SAVING THE LIVES OF TEN PASSENGERS ABOARD HIS PLANE WHEN IT CRASHED IN A MONTANA MOUNTAIN RAVINE ON MAY 12, 1942, WAS TRULY A PILOT'S PILOT.

A FLIER SINCE HE WAS THIRTEEN YEARS OLD, CAPTAIN SHANK'S FLYING WASN'T JUST THEORY—IT WAS ACTUAL. THE WHEREWITHAL TO MAKE POSSIBLE HIS TWO MILLION MILES OF FLYING AND HIS MANY OTHER INVALUABLE CONTRIBUTIONS TO THE AIR LINE PILOTING PROFESSION AND AIR TRANSPORTATION GENERALLY, ALL CAME THE HARD WAY.

AS REAL AS LIFE ITSELF, HE WAS A WIDE-EYED BOY ADMIRER OF HIS HOME STATE PIONEERS, CHARLES A. LINDBERGH AND "SPEED" HOLMAN, WHO BLAZED EARLY HISTORY IN AVIATION AND ETCHED THEIR NAWES DEEPLY IN ITS RECORD OF ACHIEVEMENTS.

THE BOY GENE AND LATER THE MAN FOLLOWED IN THEIR FOOTSTEPS TO CARVE FOR HIMSELF A PLACE OF IMMORTALITY IN FLYING THAT WILL STAND FOR ALL TIME. AS A PILOT AND AS A MAN, GENE SHANK'S LIFE WAS A TRIBUTE TO BOTH. HIS DEMISE IS AN IRREPARABLE LOSS.

CAB Issues Salary Investigation Order

(Continued from Page 3)

another busy month for ALPA. Mr. Behncke's time for the month was divided about one-half travelling and the balance at Headquarters. The situation with everyone in the industry, and ALPA is no exception, is that nobody seems to really get caught up any more. Instead of trying to keep caught up, most executives in the business appear to be following the rule of doing the most important things first and letting it go at that.

The events of World War II and the projecting of new wartime air routes to far away points have brought to the fore many pilot working condition problems that must be solved. The swiftly-moving picture brought about by the war keeps piling on more and more work for ALPA which must continue to be coped with promptly and effectively.

CAB Issues Salary Investigation Hearing Order Against National

In addition, an official touch has been added recently to ALPA's activities in the form of a salary investigation hearing order issued by the Civil Aeronautics Board on June 9, 1942. During the period from November, 1938, to April, 1941, National Airlines employed a rather unorthodox method of paying its pilots. It was a sort of a monthly lump sum arrangement which the company officials chose to describe as a flat salary. They insisted that the pilots were receiving as much by this method of payment as if they were being paid under the Labor Board scale formula. An investigation of the facts revealed that this was not a reality. This formed the basis of a complaint made to the CAB on April 26, 1941. Since that time a number of efforts have been made by representatives of the CAB to settle the case without official action, without success. The CAB's order, serial No. 1790, which was issued in this case on June 9, 1942, contains the following text:

Order Instituting Investigation and Assigning Hearing

UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

At a session of the Civil Aeronautics Board held at its office in Washington, D. C. on the 9th day of June, 1942

In the Matter of the complaint of AIR LINE PILOTS ASSOCIATION against NATIONAL AIRLINES, INC.	Docket No. 750

It appearing that a complaint has been filed against National Airlines, Inc., over routes numbers 31 and 39, wherein the complainant, Air Line Pilots Association, complains that the carrier, National Airlines, Inc., has failed to comply with section 401(l) of the Civil Aeronautics Act of 1938, as amended, in that the said carrier during the period from November 1938, to April 1941, failed to maintain rates of compensation for its pilots in conformity with the decision numbered 83 made by the National Labor Board on May 10, 1934, and requests such relief as may be within the power of this Board; and

The Board finding that there is a reasonable ground for investigating this complaint and that a public hearing is necessary in order to carry out the provisions of and to exercise and perform its duties under the Civil Aeronautics Act of 1938, as amended, particularly section 1002 thereof;

IT IS ORDERED:

1. That an investigation be and it is instituted to determine whether National Airlines, Inc., between November, 1938, and April 1941, has failed to maintain rates of compensation in accordance with the provisions of section 401(l) of the Civil Aeronautics Act of 1938, as amended, or any requirement pursuant thereto, and if so, whether an order should be issued to compel compliance with any such provision or requirement; and

2. That the complaint be assigned for hearing before an examiner of the Board at a time and place hereafter to be designated; and

3. That National Airlines, Inc., be made a party to this proceeding, and that a copy of said complaint be served upon National Airlines, Inc.

By the Civil Aeronautics Board:
/s/ Darwin Charles Brown
Darwin Charles Brown,
Secretary.

(SEAL)
Certified to be a true copy of the original:
/s/ C. D. Flanner
Chief, Minutes Section.

HERE'S SOMETHING NEW — MOTORLESS GLIDER PLANE FORMATION FLYING

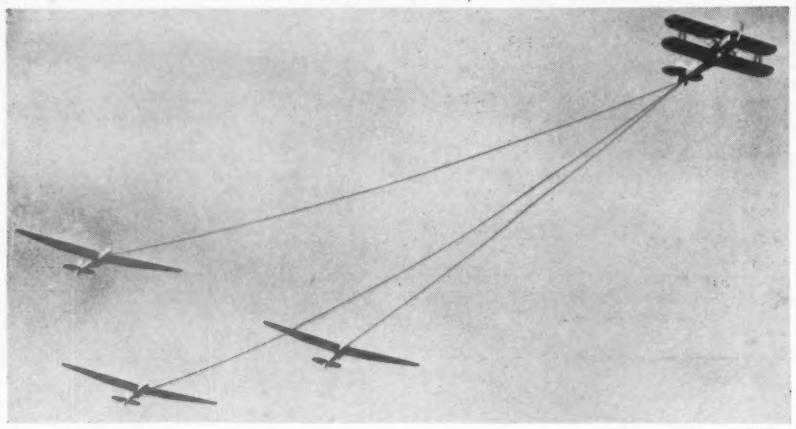
A new "wrinkle" — cargo and troop carrying gliders—has gained amazing impetus in aviation circles within the last few months. On June 1 the Army swung into an extensive program to train pilots and build gliders—for what use, exactly, they can, of course, not say.

But "alert" air line officials, watching this fast-moving innovation in the field of air transport, visualize tremendous post-war as well as wartime benefits. It is estimated that if the air lines had a fleet of 600-700 gliders to use with their present planes, and making allowances for lost speed, they could double their carrying capacity.

Glider Towing Uses Old Principle

This new concept of transport by air uses the familiar principle that more weight can be pulled than can be lifted. It is contended that equipment needed to lift 200 pounds of dead weight is more than capable of picking up a glider loaded with 1500 pounds, since the glider becomes air-borne after a comparatively slight pull.

Thus, a DC-3, fully loaded, is capable of towing two gliders, the combined load of which is equal to the capacity of the DC-3 itself.



—Press Association Photos

Events of World War II have proven that air-borne troops have niched for themselves a place of unquestionable importance in modern warfare. The fall of Crete definitely proved this, and also proved the military worth of gliders. It is also suspected that Germany is supplying its front lines with fresh troops borne by giant gliders during the hours of darkness. The importance of glider warfare is forging to the front at Parris Island, S. C., where Marine gliders are towed to a high altitude for maneuvering practice by motored planes. Note the three towing lines. When they have reached 2,000 or 3,000 feet, the motor plane will dip and the three glider planes will cut loose their tow lines. Then the middle plane will come up to take the lead, and the inverted A will become an actual V formation.

The middle glider shown in the photo above has taken the lead as these three motorless planes maneuver over the Marine base powered only by air. To the lackadaisical individual who is inclined to say, "I've seen everything; there's no longer anything new or interesting," it is pointed out that HERE is something decidedly new—a motorless glider formation flight.

Speeds would range from 130 mph to a maximum of 150 mph.

Army Orders 9- and 15-Place Gliders

Trial orders have been placed with nearly a score of manufacturers throughout the country, and announcement is made that the Army glider program is scheduled for a minimum of six months, and will be extended if results warrant.

Most of the Army orders are for "standard" model 9- and 15-place gliders. They are expected to be in quantity production by the time pilots have been trained to fly them.

That the Army is not the only branch of the Armed Forces experimenting with gliders is shown by the Navy's order for huge 12- and 24-place amphibian gliders to be used by the Marine Corps. They are intended for cargo as well as combat duty.

Mainspring behind the glider program is that the demand for swift movement of men and goods, both in this country and abroad, is rising so much faster than aircraft production that the easily-built motorless craft may prove the solution to a serious problem.

German Gliders Potent Factor

Militarily, the Germans have demonstrated the versatility and potency of glider-borne troops. Beginning with the attack on the Lowland countries of Europe in 1940, where troops were landed thousands of men over the top of the British Mediterranean blockade to their Libyan front. Aerial freight trains, with big transport planes acting as locomotives, ply the air lanes at night from bases in Greece and adjacent territory.

Barringer Heads Program

In charge of the Air Corps' glider program is Major Lewin Barringer, pioneer U. S. glider pilot who is one of the four men in the country awarded a "Golden C," Soaring Society's award for glider pilots who can fly 185 miles and reach 10,000 feet in a motorless plane.

CAA Issues Urgent Call for Pilots

In their urgent call for volunteers to train as glider pilots, the Civil Aeronautics Administration opened the door to thousands of pilots eager for action who, until now, have been unable to enter the armed air services.

"There are nearly 85,000 pilots in this country who have private licenses," CAA Administrator Charles I. Stanton said. "There are 160 who have glider pilot licenses. There are many who are not physically fitted for active combat work in the powerful, fast airplanes with which we are fighting, and it is these who are the logical glider pilots. They have the skill already. All they need is the specialized training which these courses will give them. Thereafter, the door to interesting and effective service to their country is open to them."

Applicants, who have had a private license or higher, will be enlisted as privates, and upon completion of the course will be awarded wings and rated as staff sergeants, with a monthly income approximating $180, including allowances. After further experience and demonstration of leadership qualities, they will be in line for commissioning.

After a refresher course on light planes, which will feature "dead-stick," power-off landings, candidates will receive instruction on small and large gliders at Army glider schools.

Conversion into gliders of Aeronca "flivver" planes, suggested more than a year ago by CAA Administrator Charles I. Stanton, recently has been successfully demonstrated. The engine was replaced with a new nose, seating a third person, and a stubby landing gear installed.

Rarely has such a potentially far-reaching and challenging "idea" been thrust upon the aviation industry. Although the glider development is still in its infancy, it gives promise of ranking with such revolutionary changes as the multi-motored, allmetal airplane. There is no doubt that the wizardy of America's aviation brains will perfect gliders, for war and peace.

Ah, here we have the three boys coming in wingtip to wingtip in a perfect glider formation after a training flight, the various stages of which are shown in this and the two pictures above.

Gliders of fabric covering, with steel tubing fuselage and all-wood wings and tail are currently favored. However, an all-wood fuselage is entirely feasible. Established commercial manufacturers are receiving most of the orders, with one of the largest going to 15 or 20 miles behind Allied lines to establish bridgeheads and wipe out pillboxes. The Nazis also spotlighted their glider technique in the capture of Crete.

Their most recent use of the glider has been in the transportation of tons of provisions and

"BEST BRAINS" TO STUDY AIR CARGO

(Continued from Page 1)

scheme is not only advisable but indispensable. *American Aviation Daily* reports the following interesting developments in the air cargo field:

Air Cargo May Be Solution to a Major War Problem

It is apparent that Washington leaders are placing cargo by air near the top among war problems needing immediate attention. The materials situation, felt by many to be an even bigger problem than transportation, has been getting attention and action for some time, while air cargo is just beginning to be recognized as a potential solution to a major war problem.

It is expected, however, that materials shortages and the need for cargo facilities will be closely related for a while, since one of the first considerations to be faced by War Production Board's new cargo plane committee is the determination of materials which can be allocated to the building of cargo planes.

Must Determine Priority Status of Air Cargo vs. Combat Needs

The use of low alloy steels has for some time been held to be the best answer to providing quantities of structural metals for cargo aircraft, and a large proportion of orders placed thus far, particularly for large gliders and for powered cargo planes of the type being built by Edward G. Budd Manufacturing Company for the Navy, have specified steel tubing fuselage and fabric covering.

WPB, however, considers the steel situation to be increasingly acute. Requirements Director William L. Batt stated that future use of steel will have to be greatly restricted, with only the highest rated war items getting supplies. In view of this, it is expected that the use of steel for air cargo equipment will be advocated only if cargo needs are held by key planners in WPB to rank with, or above, immediate combat needs.

Committee to Make Objective Study

The cargo plane committee has not yet met, and it is expected to be several days before the full membership can be drawn together for preliminary discussions. Meanwhile, spokesmen point out that the committee is thus far simply charged with "the job of making an objective study of the situation." It is not expected that any positive statements will be made by the committee or its members on action to be taken until those studies have been launched.

The fact that no direct representatives of either the air lines or the aircraft manufacturing industry were named to the committee is of little significance, the *Daily* was told. WPB spokesmen state that "the best brains in the country" will be asked for advice, and no one with the ability to contribute something on cargo plane construction and operation will be overlooked.

Coaxes Barnacles

(Continued from Page 2)

chickens he brought us occasionally from the farm.

Was over to see Capt. Warren Rosenberger the other day, and he was looking good and hopes to be out in the near future. Let's not forget he is there.

Capt. Fred Stripe, just promoted, is also studying to be a metallurgist. At least, he was heard inquiring of a mechanic as to how far a throttle would bend forward before it would break. Quite a bit, Fred. For details see Captain Harry Musick.

Speaking of Captain Musick—he was seen recently trying to coax the barnacles off the bottom of his boat with a lump of sugar.

I've been nominated crash representative. Why not, I'm a wreck anyway, so I've started my first investigation.

DEVOTION

Badly injured and unable to write his signature, Capt. Karl R. Martin demonstrated the mettle from which air line pilots are made. With a background of towering flames and gloomy drizzling rain on the lonely bank of a gaping Montana mountain ravine was recently enacted a scene that will live eternally in the minds of all those present. Realizing that he was fatally injured, Captain Martin said: "Get this motor off me! I made no will; I want to leave everything to my wife, Mrs. Nancy Martin, —— — Avenue, Seattle—home, car, to my wife. Everything to my wife." And then in the low-bent ear of a passenger he whispered a message that is their secret —his and hers. We believe it was something like this: * * * from life's blood and sand I must depart, I love only you! And then while the passenger steadied his hand, he signed by making a cross, thus marking the passing of a gentleman who gave his last full measure of devotion to his family, and an airman of unquestionable skill and certainly one of unquestionable courage.

Need for Crash Procedure—CAB

(Continued from Page 1)

on a field where there is relatively little traffic. Field personnel and air carrier personnel heard it crash. When the plane crashed the flares which were ejected from the airplane by impact caught fire under the tail of the ship. Trained personnel could have removed the flares and prevented the destruction of the tail by fire. However, the flares were allowed to remain there burning.

Fire from the front of the airplane spread very slowly, the only indication for many minutes being smoke. Personnel with even meager training could have removed the crew and probably extinguished the fire, but instead the field personnel and air carrier personnel stood back and simply watched. Many other people were present who could have assisted in rescue efforts had they been properly directed.

The station manager for the air carrier instead of directing rescue efforts, stood by his telephone to notify his headquarters.

The fire department arrived promptly but did not know what to do to put the fire out even in its incipient stages. Fire extinguishers were available which might have been adequate had they been used in time.

All Airports Should Take Heed

This dismal experience should serve to drive home to managers of every airport, regardless of size, how important crash training can be. If they cannot afford the equipment outlined in CAB bulletins Nos. 120 and 124, at least they can provide some axes, crowbars, fire extinguishers, gloves, a car, and most important of all—train your personnel.

Fire departments located near airports should also learn from this accident and train their men in the best methods to attack airplane wreckage. Airport managers should take the initiative in securing the co-operation of the fire departments.

You may have a crash on your airport today—are you prepared?

ULTRA-HIGH FREQUENCY REPORT

(Continued from Page 5)

as to what he hears, all of which produces lag. And, while flying blind on instruments, any errors in navigation made by the pilot would be amplified to a degree by this lag. Therefore, the Committee feels that the visual range will increase to some extent the accuracy of instrument flying.

Because no test flights were made during bad weather conditions, we are unable to make any report on the static-free nature of the facility. However, the very nature of the ultra-high radio wave being such as to reduce static to a minimum, this feature will become an inherent advantage of the new UHF development, and will result in the pilots' receiving navigational assistance from their radios when they need it most—during bad weather.

Freedom From Static Alone Makes UHF Desirable

The test pilots at the Experimental Station at Indianapolis were very positive in their answers to the questions of our Committee as to how the UHF facility operated under thunderstorm and severe static conditions. This freedom from static is alone sufficient reason to cause this type of range to be desirable over low frequency ranges, even though other faults may still exist, for the reason that a range is primarily a homing device. When a pilot reaches his intended destination he is no doubt tired and short of fuel, and to find his destination blanketed in a front of thunderstorms which make his radio facilities practically worthless, creates a very undesirable situation and one not conducive to air safety. The present four-course aural low frequency range facilities are undesirable for this reason. However, it has been developed sufficiently and the pilots are well enough acquainted with it to make it reasonably reliable. In fact, its reliability is such as to make necessary no hurry whatsoever in the installation of the UHF ranges on a nation-wide basis until such time as they are fully developed and service-tested.

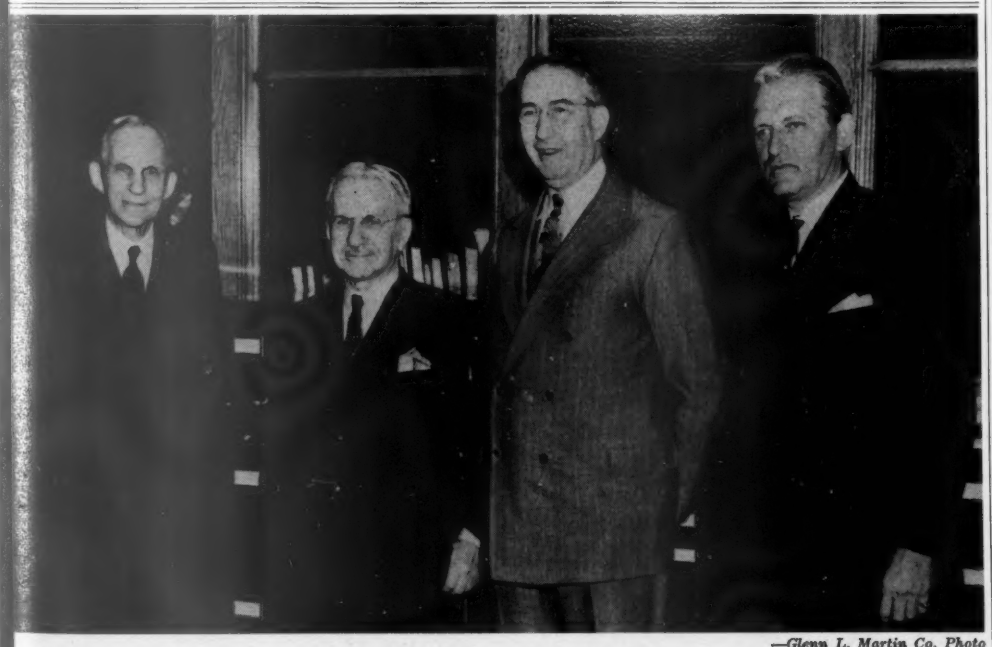
Committee Again Recommends Thorough Testing of UHF

This concludes our report. The Air Traffic Control & Airway Aids Advisory Committee feels that the ultra-high frequency radio range developed will prove a great step toward the perfect radio range. We should like to suggest again that this facility be service-tested on an experimental airway before contracts are let and installations begun. In consideration of the future of the Ultra-High Frequency development, special attention should be devoted to the careful service testing of this facility on an experimental airway before spending millions of dollars in the purchase of UHF equipment. The results obtainable from such action, both from a technical and flying viewpoint, will prove of inestimable value in the successful development of this new facility, for such a plan will smooth the way for the nation-wide switch-over to ultra-high, in that many of the problems will have been solved during this try-out period.

We would like to extend our deep appreciation for your co-operation and assistance in arranging to have our Committee test the CAA's UHF facilities at Indianapolis, and especially for the patience and consideration shown in permitting us to run rechecks on our original observations.

Our Committee is hopeful that this report will be helpful to you in the very important development work that you are engaged in, and if, at any time we may be of further assistance in this or any other development that you or your assistants may be engaged in, please feel free to call on us.

Sincerely yours,
AIR LINE PILOTS ASSOCIATION,
/s/ David L. Behncke, President



—Glenn L. Martin Co. Photo

AXIS NEMESES ***Auto and aviation pioneers met recently when Glenn L. Martin, President of the oldest and one of the largest aircraft manufacturing concerns in the country, was the guest of Henry Ford and his production chief, Charles E. Sorensen. Kindred spirits, Martin and Ford are the only pioneers left active in their respective industries. Ford developed and began the manufacture of automobiles early in the 1900's while Martin followed closely on the heels of the Wright Brothers as an aviator and aircraft manufacturer. The power that these quiet appearing, unassuming men possess to prosecute the war to a successful conclusion is terrific. Mass production is the real key to victory, and men such as these are in possession of that key, especially "Henry," who is probably the world's greatest mass production industrialist. L. to r.: Henry Ford; Albert Kahn, the industrial architect who designed both the Martin factories and the Ford Willow Run Plant; Mr. Martin; and Charles E. Sorensen, Vice-President in Charge of Production at the Ford Motor Company.***

WELL SAID, CHUM, WELL SAID

We have all heard that ancient but nevertheless true one about "You can lead a horse to water but we'll be darned if you can make him drink."

A short time ago Columnist Walter Lippman took a firm grip on his typewriter and manufactured the following: "You can lead a working man to his tools but you can't make him work with his whole heart. We must not get into a position where it looks as if we were using the emergencies of war to destroy collective bargaining."

* * *

NOT ONLY PRICES GO UP

Skirts go higher, costs go lower as one of the consequences of the War Production Board's recommendations that garment manufacturers conserve cloth wherever possible. The new "wartime" skirt and the current knee length design are modeled by two Hollywood lovelies, (left) Anne Gwynne and Elaine Morley. Movie Director William Seiter, refusing to skirt the issue, measured the two lengths and proclaimed flatly that the new "wartime" model had much to recommend it. The WPB's recommendations will curtail many of the frills and furbelows of women's clothing, such as pleats, ruffles, balloon sleeves, cuffs, and patch-pockets. However, the WPB emphasizes (the big sissies! We'll bet they're sneaking a peek right now. What's the matter, are you afraid of your wives? Chicken-pecked no doubt!) that it's recommendations do not necessarily mean the raising of skirt lengths. The picture is Hollywood's own idea. Sherman said, "War is hell!"—all of which may be true, but none can deny that it is not at the same time truly the "Greatest Show on Earth."

* * *

FRIDAY THE 13th

Maybe No. 13 has been wrongly accused of being unlucky, or maybe the evidence to this effect that we are about to present is happenstance. Anyway, here it is: The number of the TWA plane that crashed at Las Vegas on Jan. 16, was No. 1946, the total of which if all four digets are added into a single amount equals 20. The number of the UAL plane that crashed May 2 at Salt Lake City was 18146, the total number of which, if all digets are added into a single sum, also equals 20. Maybe No. 20 is the culprit instead of 13.

* * *

THEY BANE A COUPLE OF TOUGH GUYS

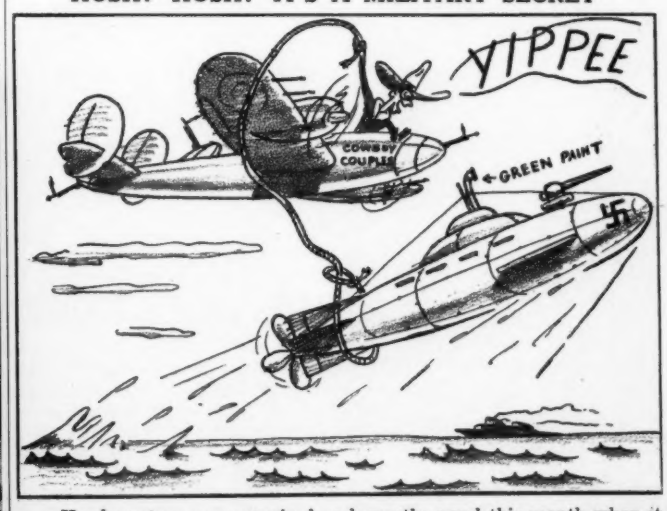
Two sourdoughs, Walter Sakow and George Tomoff, started out recently to make their pile digging gold in Alaska. An argument ensued. Tomoff was shot three times, taken to a hospital, released two weeks later, and promptly indicted by a grand jury.

Sakow was shot three times, taken to a hospital, two weeks later was discharged and indicted by a grand jury.

Sakow was charged with shooting Tomoff. Tomoff was charged with shooting Sankow. Now I ask you! If that isn't a draw, what is?

* * *

HUSH! HUSH! IT'S A MILITARY SECRET



Headquarters was surprised and greatly awed this month when it found itself in possession of a military secret garnered from the newsletter of Ed Couples, scribe for Council No. 32, PCA, Detroit. We don't know what the censor will have to say about our publicizing such a brilliantly conceived plan for trapping U-boats, but if you'll promise not to tell it to anyone except your best friends, and with a warning of hush! hush! and sh-h-h, sh-h-h, here it is:

A submarine is sighted lurking below the water. The pilot flies over the spot and sprays green paint, resembling exactly the color of the ocean, over the surface of the water. The sub rises to take a look and the green paint adheres to the periscope. The sub captain, being unable to tell when he has surfaced, keeps rising. When an altitude of 2500 feet is reached by the sub, the pilot of the plane slips in close for the kill (for this purpose ex-cowboys are used), and with his trusty lariat throws a four-in-hand around the tail of the sub, drags it to port. Results: No ammunition wasted, and the sub can be melted into little potties so that it won't be necessary to rush out in the cold, blustery, wintry night when we run out of bathroom gadgets.

With ideas such as this flowing from the inventive ingenuity of our greatest brains, victory is firmly within our grasp and the only danger appears to be that we may choke it to death before we are able to nail it securely on the pages of history.

$7,200,000 WAS THE PURCHASE PRICE

Map of Alaska

Home of Totem Pole & Sourdough

ALASKA — home of the totem pole, the "sourdough," and that glamour girl of the Northern Lights, Klondike Kate—has truly been made a land of opportunity by air transportation.

"Deep in the Heart of Alaska" Would Be More Expressive

Ever since 1867, when Secretary of State Seward persuaded Congress to appropriate the $7,200,000 needed to buy the territory from Russia, Alaskan development has been retarded because of the difficulty—or impossibility—of travel.

Mile after mile of jagged mountain ranges, frozen tundras, and swift streams are found in its 586,400 square miles an area more than twice the size of Texas. This inaccessibility prompted newspapers of that day to call Alaska a "huge frozen wilderness not worth taking as a gift!"

"Seward's folly," as it was also called, has undergone great changes since the coming of the airplane. For example, a trip by dog sled from Fairbanks to Nome takes 30 days and costs $500, while by air this distance may be spanned in four hours; the passenger plane fare is $74. Its vast interior is being made to yield up the riches (fifty times the purchase price has already been taken out in gold alone) which it possesses.

Alaska a Military Prize

Militarily, World War II has given Alaska a significance which was predicted years ago by America's great air power prophet, Gen. "Billy" Mitchell, who said: "HE WHO HOLDS ALASKA HOLDS THE WORLD."

Curbstone strategists have long predicted that Alaska would be the spot where the Japs would strike first should we ever be forced into a war against them. The recent attack on Dutch Harbor has proved the soundness of their reasoning.

Alaska's strategic location is clearly illustrated when it is realized that it lies not far from the great circle route between the northwestern part of the United States and Japan, and that only a few miles of water separate it from Siberia.

No Longer Isolated Outpost

Thanks to our commercial air line development, Alaska is no longer an isolated American outpost.

Because of their courage and foresight, from the smallest one-plane charter flier to Pan American's extensive Alaskan personnel, the U. S. Army finds the nucleus already at hand with which to make of Alaska an air fortress—as impregnable from attack as it is potent for offense.

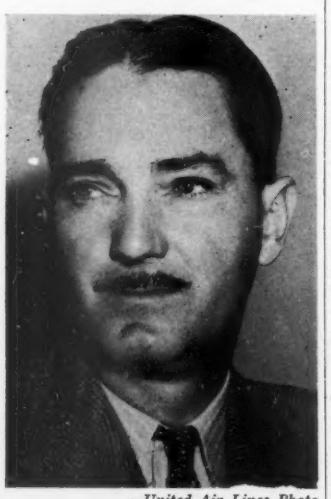
Air Freight Common in Alaska

In addition to Pan American's route *(see map above)*, there are (March, 1942) 23 other Alaskan air lines in operation. Combined, they have approximately 90 planes, ranging from Lockheeds to Taylorcrafts, with a seating capacity of some 335.

These intrepid fliers have ferried everything from cows to grand pianos and from people to pills. Hardly a winter passes without the thrilling story being told of a "mercy" flier's daring flight to some isolated region carrying life-saving serum.

America can indeed be proud of Alaska: We acquired it fairly, and are developing it intelligently.

Unassuming


—United Air Lines Photo

Unassuming Capt. Warren D. "Bill" Williams is one of the oldest air line pilots, from a standpoint of service, and has a record of flying that ranks very closely to that of Capt. E. Hamilton Lee, dean of the world's air line pilots. Williams is truly a pioneer of the nation's air network, having played an important part in its development, especially the first coast-to-coast airway. He was one of Uncle Sam's pilots when the mail was carried by the Post Office Department. For many years an employee of United Air Lines, he was recently named flight operations superintendent for United's eastern division. The Captain hails from the south — Savannah, Ga., yes, suh! The only mystery about Bill is how he escaped the movie scouts throughout the many years he has blazed trails as an aviation pioneer.

LINE PILOT SCORES

"It's like shooting fish in a barrel," says Maj. Al Kalberer formerly an air line pilot operating out of Chicago, now on active duty with the Air Corps and assigned to bombardment.

This is the way the major described a recent bombing raid in which he acted as one of the squadron's leaders against a squadron of the Duce's battleships operating in the Mediterranean which were about to pounce on a British convoy.

The raid was singularly successful. Atta boy, Kal! Up and at 'em!

As an air line pilot, Major Kalberer piled up more than 1,000,000 miles between 1931 and 1938 flying for United Air Lines between Chicago and Cheyenne, and Chicago and New York. He left United for Amsterdam as a pilot for K.L.M., Dutch air line firm, and flew between Amsterdam and Java until the war knocked that route out.

Civil Air Regulations — Legislation
Additions - Changes - Amendments

CAR AMENDMENT 04-3
ADOPTED: FEB. 6, 1942,
EFFECTIVE: JULY 1, 1942.

This adds a new section to read as follows:

"04.01—Airplane categories. At the election of the applicant, an airplane may be certificated under the requirement for a particular category according to the intended use of the airplane. Sections of this Part which affect only one particular category are designated by a suffix added to the appropriate section numbers, as follows: Normal Category Suffix "N," Transport Category Suffix "T," Acrobatic Suffix "A." All sections not designated by a suffix are applicable to all categories, except as otherwise specified."

CAR AMENDMENT 04-4
ADOPTED: FEB. 6, 1942,
EFFECTIVE: JULY 1, 1942.

Detail Design of Control Systems

This adds a new section as follows:

"04.434-T—Flap Controls. For transport category airplanes, the flap control shall provide means for bringing the flaps from any position within the operating range to any one of three positions, designated hereinafter as landing, approach, and takeoff positions, or to the fully retracted position, by placing the primary flap control in a single setting marked as corresponding to each such flap position, the flaps thereupon moving directly to the desired position without requiring further attention. If any extension of the flaps beyond the landing position is possible, the flap control shall be clearly marked to identify such range of extension.

The landing position, approach position, and take-off position or any of them, may be made variable with altitude or weight by means of a secondary flap control provided for that purpose. Such a secondary control, if provided, shall operate independently of the primary control and in such manner that when it has been adjusted (for the effect of weight or altitude), the necessary flap position can thereafter be obtained by placing the primary flap control in the desired position. The secondary control shall be so designed and marked as to be readily operable by the crew.

The ratio of flap retraction shall be such as to permit compliance with Section 04.7540-T."

CAR AMENDMENT 04-5
ADOPTED: FEB. 6, 1942,
EFFECTIVE: JULY 1, 1942.

Detail Design of Control Systems

This amendment adds a new section as follows:

"04.439-T—Trim Controls. For transport category airplanes, the trimming devices shall be capable of continued normal operation in spite of the failure of any one connecting or transmitting element in the primary control system. Trim controls shall operate in the plane and with the sense of the motion of the airplane which their operation is intended to produce."

CAR AMENDMENT 04-6
ADOPTED: FEB. 6, 1942,
EFFECTIVE: JULY 1, 1942.

Detail Design of Landing Gear

This inserts a new section after Section 04.4441:

"04.445—Brakes. Transport category airplanes shall be equipped with brakes certificated in accordance with the provisions of Part 15 for the maximum certificated landing weight at sea level and the power-off stalling speed, Vs as defined in Section 04.7511-T. The brake system for such airplanes shall be so designed and constructed that in the event of a single failure in any connecting or transmitting element in the brake system, or the loss of any single source of hydraulic or other brake operating energy supply, it shall be possible, as shown by suitable test or other data, to bring the airplane to rest under the conditions specified in Section 04.7533-T with a mean negative acceleration during the landing roll of at least 50 per cent of that obtained in determining the landing distance under that section."

CAR AMENDMENT 04-7
ADOPTED: FEB. 6, 1942,
EFFECTIVE: JULY 1, 1942.

Performance Requirements

This adds a new section to Part 04 which reads:

"04.707-T—Flutter and Vibration. All parts of transport category airplanes shall be free from flutter or excessive vibration under all speed and power conditions appropriate to the operation of the airplane during take-off, climb, level flight, and landing, and during glide at speeds up to the maximum indicated air speed attained during official flight tests (see Section 04.722). There shall be no appreciable buffeting for any flap position at any speed in excess of 10 miles per hour above stalling speed for such position nor shall buffeting at lower speeds be so violent as to interfere with the pilot's control of the airplane or cause discomfort to it's occupants."

—Pan American Photo

OVER THE TOP **Flying over the top of clouds, rugged mountains, and the Mendenhall Glacier en route between Juneau and Fairbanks, Alaska, a Pan American Airways' Alaska Division, Lodestar reflects why air transport has so quickly forged ahead in the development of this vast and rugged territory. What formerly took weeks and months to traverse by dog team or any other mode of surface transportation, now is but a matter of hours and minutes by air. Judging from the picture, however, it would seem that spots available for a walk-away-from-it landing are not too plentiful.**